

REMARKS

INTRODUCTION:

In accordance with the foregoing, claims 24 and 38 have been cancelled without prejudice or disclaimer, and claims 1, 8, 9, 15, 16, 21, 36, and 37 have been amended.

Claims 1-18, 20-23, 25-29, 31-33, and 35-37 are pending and under consideration.

ALLOWABLE SUBJECT MATTER:

In the Office Action, at page 21, item 9, the Examiner indicated that claims 10 and 14 would be allowable if rewritten in independent form. Additionally, the Examiner indicated that claim 3 would be allowable if rewritten in independent form, if the §112 rejection is overcome. Applicant holds rewriting of these claims in abeyance until the Examiner has had the opportunity to review the arguments presented herein.

Applicant notes that the Examiner has withdrawn the previously indicated allowability of claims 9-15, 32, and 35 based on the newly discovered reference, Furuki. But Applicant also notes that the apparent withdrawal of allowability of claim 35 appears to be a typographical error. Both the Office Action Summary and the Allowable Subject matter indicate that claim 35 is allowed, and there are no rejections of claim 35 in the Office Action. Accordingly, to further prosecution, Applicant has assumed that claim 35 is allowed.

REJECTION UNDER 35 U.S.C. §112

In the Office Action, at page 2, item 2, the Examiner rejected claims 1-7, 21-29, 31, 33, 37, and 38 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The reasons for the rejection are set forth in the Office Action and therefore not repeated.

Applicant respectfully submits that the claim amendments overcome the Examiner's rejection.

REJECTION UNDER 35 U.S.C. §101:

In the Office Action, at page 3, item 3, the Examiner rejected claim 38 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. The reasons for the rejection are set forth in the Office Action and therefore not repeated. Applicant traverses this rejection and respectfully requests reconsideration.

Claim 38 has been cancelled without prejudice or disclaimer.

REJECTIONS UNDER 35 U.S.C. §102:

In the Office Action, at page 4, item 4, the Examiner rejected claims 1, 2, 4-6, 8, 9, 11, 13, 16-18, 20-29, 31-36, and 38 under 35 U.S.C. §102(b) as being anticipated by Furuki et al., (U.S. 6,000,689 – hereinafter Furuki). The reasons for the rejection are set forth in the Office Action and therefore not repeated. Applicant traverses this rejection and respectfully requests reconsideration.

In the Office Action, at page 17, item 5, the Examiner rejected claims 37 and 38 under 35 U.S.C. §102(b) as being anticipated by Yamazaki (U.S. 6,217,017 – hereinafter Yamazaki). The reasons for the rejection are set forth in the Office Action and therefore not repeated. Applicant traverses this rejection and respectfully requests reconsideration.

Claims 24 and 38 have been cancelled without prejudice or disclaimer.

The MPEP states: “[t]o anticipate a claim, the reference must teach every element of the claim.” (MPEP 2131).

The MPEP then quotes: “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). (Quoted in MPEP 2131).

The MPEP further quotes “[t]he elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required.” *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). (Quoted in MPEP 2131).

Amended, independent claim 1 recites: “...a stripper which is installed to be inclined at a predetermined angle with respect to the paper stacked on the paper cassette, and attached to at least one front side of each of the paper guides; a lever which is installed at a side of the stripper and has a contact surface to contact the paper transferred by the pickup roller; and a lever shaking unit which shakes the lever to intermittently contact a side of the paper transferred by the pickup roller, the lever shaking unit comprising a lever shaft installed on the frame, the lever being connected to the lever shaft, a shaking plate extending from the lever shaft, and a shaker installed on the frame and intermittently contacting the shaking plate to shake the lever; wherein a friction force is intermittently applied to the side of the paper by the lever, such that double feeding of the paper is prevented.”

Amended, independent claim 8 recites: "...a stripper which is installed to be inclined at a predetermined angle with respect to the paper stacked on the paper cassette, and attached to at least one front side of each of the paper guides; a lever which is installed at a side of the stripper and has a contact surface to contact the paper transferred by the pickup roller; a lever shaking unit which shakes the lever to intermittently contact a side of the paper transferred by the pickup roller; and a lever shaft which is placed at the side of the stripper and rotatably installed on the frame of the printer, wherein the lever is fixed on the lever shaft, and the lever shaking unit shakes the lever shaft so that the lever is shaken, wherein a friction force is intermittently applied to the side of the paper by the lever, such that double feeding of the paper is prevented."

Amended, independent claim 9 recites: "...a stripper which is installed to be inclined at a predetermined angle with respect to the paper stacked on the paper cassette, and attached to at least one front side of each of the paper guides; a lever which is installed at a side of the stripper and has a contact surface to contact the paper transferred by the pickup roller; a lever shaking unit which shakes the lever to intermittently contact a side of the paper transferred by the pickup roller; and a lever shaft which is placed at the side of the stripper and rotatably installed on the frame of the printer, wherein the lever is fixed on the lever shaft, and the lever shaking unit shakes the lever shaft so that the lever is shaken, wherein a friction force is intermittently applied to the side of the paper by the lever, such that double feeding of the paper is prevented, and the lever shaking unit comprises: a shaking plate fixed on the lever shaft, a cam gear which contacts a first side of the shaking plate, rotates, and periodically shakes the shaking plate so that the lever coupled with the lever shaft is shaken, an elastic member which is installed at a second side of the shaking plate and applies an elastic force to the shaking plate so that the shaking plate is closely attached to the cam gear, and a driving motor which rotates and drives the cam gear."

Amended, independent claim 16 recites: "...applying a first paper feeding resistance force to a first sheet of paper which is picked-up by a pickup roller and transferred along a paper path into the printer; and intermittently applying a second paper feeding resistance force to a side of one of the first sheet of paper or a second sheet of paper disposed under the first sheet of paper, wherein the second paper feeding resistance force includes a friction force intermittently applied to the side of the second sheet of paper by a lever which is installed to be shaken on the paper path."

Amended, independent claim 21 recites: "...a stripper disposed on the paper feeding path, fixedly installed on the frame to be inclined at a predetermined angle with respect to the

paper stacked on the paper cassette, and contacting the paper transferred by the pickup roller to apply a first paper feeding resistance force to the paper; a lever shaking unit, comprising a lever shaft movably installed on the frame, a plate extending from the lever shaft, and a motor, selectively contacting the plate to rotate the lever shaft; and a lever disposed on the paper feeding path, installed on the shaft, and having a contact surface intermittently contacting the paper transferred by the pickup roller to apply a second paper feeding resistance force to the paper.”

Independent claim 32 recites: “...a stripper disposed on the paper feeding path, fixedly installed on the frame to be inclined at a predetermined angle with respect to the paper stacked on the paper cassette, and contacting the paper transferred by the pickup roller to apply a first paper feeding resistance force to the paper; a lever disposed on the paper feeding path, movably installed on the frame, and having a contact surface contacting the paper transferred by the pickup roller to apply a second paper feeding resistance force to the paper; and a lever shaking unit mounted on the frame to shake the lever to intermittently contact the paper transferred by the pickup roller, wherein the lever shaking unit comprises: a resilient member biasing the lever in a first direction, a motor moving the lever in a second direction to selectively allow the contact surface to contact the paper, a shaft connected to the lever, a shaking plate connected to the shaft, and a cam connected to the motor to contact the shaking plate.”

Amended, independent claim 36 recites: “...a stripper fixedly disposed on the paper feeding path to apply a first paper feeding resistance force to the paper fed by the pickup roller; a lever movably disposed on the paper feeding path to selectively apply a second paper feeding resistance force to the paper fed by the pickup roller, the lever being installed on a lever shaft rotatably installed on the frame; a plate extending from the lever shaft; and a power source controlling the lever, by intermittently contacting the plate, to move with respect to the paper fed by the pickup roller to intermittently contact the paper.”

And amended, independent claim 37 recites: “...a pickup roller installed in the printer; an intermittent force applying unit, comprising a shaft installed on the printer, a plate extending from the shaft, and a contactor installed on the printer and intermittently contacting the plate to rotate the shaft; and a lever installed on the shaft and intermittently applying a friction force, under influence of the intermittent force applying unit, to a rear side of the picked up paper, to prevent double feeding of the paper.”

Regarding Furuki, initially, the paper guide 20 is not installed at a front portion of cassette 2, contrary to the Examiner’s assertion. (See Furuki, at col. 9, lines 10-15).

In the first embodiment (FIGS. 1-4), even assuming *arguendo* that the combination of lever 7 and separation roller 4 is a "lever," as asserted by the Examiner, when paper 1 is being fed, separation roller 4 is always biased to contact pick roller 3. Therefore, separation roller 4 does not "intermittently" contact paper 1. (See Furuki, at col. 9, lines 10-15).

Even in other disclosed embodiments (e.g., the third embodiment – FIGS. 6 and 7), when separation roller 4 retreats away from pick roller 3 after the paper 1 passes through separating portion 19, Furuki neither discloses nor suggests that separation roller 4 is again advanced toward pick roller 3 during feeding of the paper 1.

Applicant respectfully submits that "intermittent" contact requires more than a single contact and then cessation of that contact, and thus, Furuki fails to disclose every element of the claims, arranged as required by the claims, and therefore, the Examiner has not provided sufficient evidence to maintain a *prima facie* anticipation rejection of the independent claims.

Further, with respect to claim 1, cam 8 contacts follower 9, not the vertical portion of lever 7, which the Examiner asserts corresponds to the shaking plate of the subject application. But even assuming *arguendo* that cam 8 contacts lever 7 (via follower 9), such contact cannot be "intermittent" as required by claim 1, since follower 9 is in constant contact with cam 8.

Additionally, with respect to claims 21 and 32, the Examiner asserts that paper guide 20 corresponds both to the claimed plurality of paper guides and to the claimed stripper. But Furuki neither discloses nor suggests that paper guide 20 is both installed on the cassette 2, and fixedly installed on the casing.

Further, with respect to claim 21, shaft 17 does not rotate, as required by claim 21. Instead, lever 7 rotates about shaft 7. (See Furuki, at col. 7, lines 18-20).

Regarding claim 37, in Yamazaki, roller 34a of lever 34 is in constant contact with cam 33 (See Yamazaki, e.g., at FIG. 9). Thus, contrary to the Examiner's assertion, Applicant respectfully submits that Yamazaki neither discloses nor suggests that cam 33 (which appears to be mistakenly labeled as 11 in FIG. 8 – identification number 11 refers to the print medium in the Yamazaki) intermittently contacts lever 34. Thus, Applicant respectfully submits that Yamazaki fails to disclose every element of the claim, arranged as required by the claim, and that the Examiner has not provided sufficient evidence to maintain a *prima facie* anticipation rejection of claim 37.

Accordingly, Applicant respectfully submits that independent claims 1, 8, 9, 16, 21, 32, and 36 patentably distinguish over the cited art, and should be allowable for at least the above-

mentioned reasons. Further, Applicant respectfully submits that claims 2-7, 10-14, 17, 18, 20, 22, 23, 25-29, 31, and 33, which variously depend from independent claims 1, 9, 16, or 21, should be allowable for at least the same reasons as claims 1, 9, 16, and 21, as well as for the additional features recited therein.

REJECTIONS UNDER 35 U.S.C. §103:

In the Office Action, at page 18, item 6, the Examiner rejected claim 7 under 35 U.S.C. §103(a) as being unpatentable over Furuki in view of Kan et al., (US 5,443,251 – hereinafter Kan). The reasons for the rejection are set forth in the Office Action and therefore not repeated. Applicant traverses this rejection and respectfully requests reconsideration.

In the Office Action, at page 19, item 7, the Examiner rejected claim 12 under 35 U.S.C. §103(a) as being unpatentable over Furuki in view of Hirano et al., (US 5,485,991 – hereinafter Hirano). The reasons for the rejection are set forth in the Office Action and therefore not repeated. Applicant traverses this rejection and respectfully requests reconsideration.

In the Office Action, at page 19, item 8, the Examiner rejected claim 15 under 35 U.S.C. §103(a) as being unpatentable over Furuki. The reasons for the rejection are set forth in the Office Action and therefore not repeated. Applicant traverses this rejection and respectfully requests reconsideration.

As a general matter, to establish a *prima facie* obviousness rejection, the Examiner needs to provide evidence of the existence of individual elements corresponding to the recited limitations, a motivation to combine the individual elements to create the recited invention, and a reasonable expectation of success. (See MPEP, at 2143. – “[t]he teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant’s disclosure.’ In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).”, and at 2143.03 – “[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.’ In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).”).

Should the Examiner fail to provide evidence that the individual elements exist in the prior art, or that the motivation exists in the prior art or in the knowledge generally available to one of ordinary skill in the art, then the Examiner has not provided sufficient evidence to maintain a *prima facie* obviousness rejection of the claim. (See MPEP, at 2143.03, and 2143.01).

Amended, independent claim 15 recites: "...a stripper which is installed to be inclined at a predetermined angle with respect to the paper stacked on the paper cassette, and attached to at least one front side of each of the paper guides; a lever which is installed at a side of the stripper and has a contact surface to contact the paper transferred by the pickup roller; a lever shaking unit which shakes the lever to intermittently contact a side of the paper transferred by the pickup roller; and a lever shaft which is placed at the side of the stripper and rotatably installed on the frame of the printer, wherein the lever is fixed on the lever shaft, and the lever shaking unit shakes the lever shaft so that the lever is shaken, wherein a friction force is intermittently applied to the side of the paper by the lever, such that double feeding of the paper is prevented, and the lever shaking unit comprises: a shaking plate fixed on the lever shaft, and a solenoid which is coupled with the shaking plate and periodically shakes the shaking plate so that the lever coupled with the lever shaft is shaken."

As noted in the section regarding the rejections under 35 U.S.C. §102, in the first embodiment (FIGS. 1-4) of Furuki, even assuming *arguendo* that the combination of lever 7 and separation roller 4 is a "lever," as asserted by the Examiner, when paper 1 is being fed, separation roller 4 is always biased to contact pick roller 3. Therefore, separation roller 4 does not "intermittently" contact paper 1. (See Furuki, at col. 9, lines 10-15).

Even in other disclosed embodiments (e.g., the third embodiment – FIGS. 6 and 7), when separation roller 4 retreats away from pick roller 3 after the paper 1 passes through separating portion 19, Furuki neither discloses nor suggests that separation roller 4 is again advanced toward pick roller 3 during feeding of the paper 1.

Applicant respectfully submits that "intermittent" contact requires more than a single contact and then cessation of that contact, and thus, Furuki fails to disclose every element of independent claims 1, 9, and 15, arranged as required by the claims. Further, Applicant respectfully submits that neither Kan nor Hirano, either alone, or in combination, cure this defect.

Accordingly, Applicant respectfully submits that the Examiner has not provided sufficient evidence to maintain a *prima facie* obviousness rejection of claims 7 or 12 (which ultimately depend from independent claims 1 and 9, respectively) or independent claim 15.

Applicant respectfully submits that independent claim 15 patentably distinguishes over the cited art, and should be allowable for at least the above-mentioned reasons. Further, Applicant respectfully submits that claims 7 and 12, which ultimately depend from independent

claims 1 and 9, respectively, should be allowable for at least the same reasons as claims 1 and 9, as well as for the additional features recited therein.

CONCLUSION:

In accordance with the foregoing, Applicant respectfully submits that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the cited art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

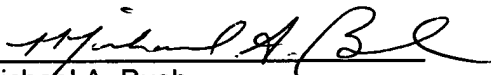
If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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